

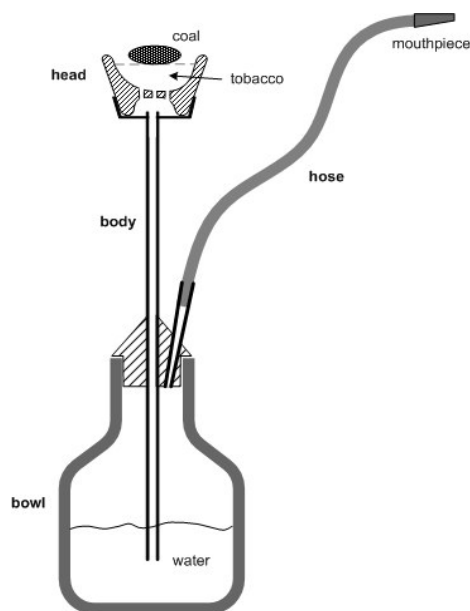
Waterpipe Smoking in Alberta

A Report by the Office of the Chief Medical Officer of Health
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Background:

Waterpipes, commonly referred to as hookah, shisha and narghile, have been used for centuries and are a relatively simple apparatus composed of a head, body, bowl, hose and a mouthpiece. The bottom of the head consists of a series of holes which allow smoke to pass into the body of the waterpipe. The body of the waterpipe is submerged in the bowl which contains water. The hose exits from the top of the bowl and is not submerged in the water. A mouthpiece is attached to the end of the hose which is used by the smoker to inhale the smoke. Moist tobacco, a herbal mixture or another substance is placed into the head of the waterpipe and is burned by a piece of charcoal which rests on top of the tobacco, usually separated by a piece of aluminum foil. The heated air which contains tobacco, a herbal mixture, and/or other substances along with the charcoal fumes, passes through the waterpipe and is inhaled by the smoker. Figure 1 outlines the process:

Figure 1. Waterpipe Diagram



Adapted from *World Health Organization*, WHO Study Group on Tobacco Product Regulation, Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators.

Waterpipes may differ greatly in terms of shapes and sizes, however, all involve the user inhaling smoke that has passed through water prior to inhalation. A typical waterpipe session lasts between 45 to 60 minutes. During this time, a waterpipe user can inhale the smoke equivalent of 100 cigarettes.

The Problem:

Waterpipe smoking can be detrimental to the users' health and has been linked to several negative health effects including an increased risk for cancer, decreased pulmonary function and increased likelihood of spreading infectious diseases. Waterpipe use can have health effects similar to cigarette use and can lead to increased risks from: exposure to carbon monoxide, exposure to second hand smoke and tobacco addiction.

Water pipe use can cause health problems, regardless of whether the product being smoked is tobacco or herbal. A research trial found that there was no difference in carbon monoxide exposure levels between tobacco and non-tobacco products smoked in a waterpipe. In addition, the heat sources used to combust the tobacco or herbal mixtures, typically charcoal or wood cinders, have serious negative health effects of their own.

The practice of smoking water pipes in bars and restaurants exposes Albertans to second hand smoke and goes against the intent of the *Tobacco Reduction Act*, Act SA 2008 c.T3.8, which aims to protect Albertans from second-hand smoke exposure in public places. Waterpipes can expose customers and employees to significant amounts of second-hand smoke. It is also important to note that pregnant women and their fetus are very vulnerable to waterpipe second-hand smoke.

Waterpipe tobacco smoking also has an addictive component. Nicotine is often delivered through waterpipe tobacco smoking and nicotine dependence can be observed among waterpipe tobacco users. Waterpipe tobacco users have reported similar withdrawal symptoms as cigarette users when attempting to quit.

There is some evidence to suggest that waterpipe tobacco smoking is a gateway to the use of other harmful products such as cigarettes, alcohol and other drugs. The evidence also suggests that waterpipe smoking increases the likelihood that former tobacco smokers will relapse.

Using a waterpipe tends to be a social activity. Often times, a single mouthpiece is used among many participants. This practice can therefore increase the likelihood of transmitting communicable diseases such as herpes, mononucleosis, tuberculosis, hepatitis and meningococcal disease.

Waterpipe Smoking Increasing

In recent years, waterpipe smoking has become increasingly popular among North American youth. For example, one study indicated that 38% of college students in North America reported having tried a waterpipe at least once. An additional study showed that 23% of young adults from a Canadian sample of participants in Montreal had used a waterpipe in the previous year. Furthermore, according to the Alberta Youth Experience Survey (2008) 10% of students between grades 7 and 12 had used a waterpipe.

In Alberta, waterpipe smoking appears to be increasing, especially among youth and young adults. There are several factors that may be contributing to this increase, such as:

- Increased Accessibility;
- Marketing;
- Social and Cultural Aspects;
- Common Myths;
- The Use of Flavoured Mixtures; and
- Lack of Regulation.

Increased Accessibility:

It is challenging to determine the exact number of locations that offer waterpipe smoking in Alberta as these businesses are not required to have additional licenses to offer waterpipes to their customers.

Alberta Health and Wellness estimates that there are at least 30 businesses that currently offer waterpipe smoking in the province. Based on anecdotal evidence and advertising, it appears as though these venues are becoming increasingly popular in Alberta.

It is important to also consider that allowing the proliferation of waterpipe/hookah bars creates an uneven playing field across the province. The *Tobacco Reduction Act* SA 2008 c.T3.8 requires that Alberta business owners must maintain a smoke-free environment inside their establishments; however, businesses that offer waterpipe smoking have an unfair advantage by being able to allow their customers to smoke. Allowing waterpipe smoking to continue sends an inconsistent message to Albertans regarding smoking in restaurants and bars, and reinforces the myth that waterpipe smoking is less harmful than cigarette smoking.

Marketing:

Products smoked in waterpipes may be associated with deceptive marketing that exaggerates the safety of its use. Certain products are marketed as containing 0.0% tar and 0.5% nicotine or 0.0% tar and 0.05% nicotine. In addition, some products are marketed as herbal and are labelled as being 100% free of tobacco and nicotine; however, the legitimacy of these labels is questionable considering that a laboratory test in California showed that herbal mixtures marketed as tobacco-free actually contained tobacco.

Waterpipes are also being marketed as portable and even include carrying cases. In addition, there are accessories that are being sold which claim to reduce the negative health effects of the smoke emitted from a waterpipe. The way these products are marketed reinforces the myth that waterpipe smoking is a relatively safe practice.

Social and cultural aspects:

Waterpipe smoking is a social activity where the apparatus is passed from person to person, and the same mouthpiece is often used by all participants.

Waterpipe smoking also has a strong cultural component. Waterpipes are popular in the cultures of Africa, India, Afghanistan, Iran, the Middle East and Turkey; however, waterpipe establishments are increasing in popularity in other parts of the world, including North America.

People of all ages and even some health professionals perceive waterpipe smoking as being less harmful than cigarette smoking. Some of the common myths include:

- Waterpipe smoking is less harmful than cigarette smoking because it has a lower amount of nicotine;
- The toxins are filtered out by the water in the bowl;
- Since waterpipe smoking is less irritating to inhale it is less toxic to the respiratory tract; and
- Fruit additives in the tobacco make waterpipe smoking healthier.

The Use of Flavoured Mixtures:

The products smoked in waterpipes are typically flavoured and emit a pleasant aroma. This may explain why youth who normally would not use tobacco, end up trying waterpipes.

Lack of Regulation:

The Alberta *Tobacco Reduction Act*, Act SA 2008 c.T3.8 currently prohibits smoking of tobacco in enclosed public places, workplaces and within five metres from a doorway, window or air intake to a public place or workplace. Waterpipe tobacco mixtures are prohibited under the legislation in the locations specified above; however, the legislation does not prohibit the use of herbal mixtures that do not contain tobacco. Alberta Health and Wellness lacks the capacity to monitor if mixtures do contain tobacco or not.

Albertans have demonstrated concern for this issue by writing to the Government of Alberta suggesting that businesses are using tobacco based mixtures inside their establishments and are therefore in contravention of the *Tobacco Reduction Act*.

Furthermore, in 2011, Health Canada revised the Tobacco Act to reduce tobacco marketing to youth. The legislation was developed to protect youth from tobacco industry marketing practices, which included the use of flavourings to appeal to youth. This legislation does not apply to tobacco used in waterpipes, allowing it to remain as a potentially attractive option for youth.

Current Actions Across Canada:

Most provinces and territories are currently monitoring waterpipe usage in their respective jurisdictions.

Like Alberta, the smoke-free legislation that exists in most provinces and territories bans waterpipe tobacco smoking in public places, but does not ban waterpipe smoking if a herbal substance is used. However, there are two exceptions, as follows:

- Quebec prohibits the use of waterpipe smoking regardless of whether the product contains tobacco or not (with exceptions).
- The City of Vancouver currently has a bylaw that prohibits the use of waterpipes, regardless of whether they are used to smoke tobacco or herbal substances in public places (with exceptions). It should be noted that two waterpipe shop owners in Vancouver have initiated a Constitutional challenge against the City of Vancouver's bylaw.

Current Action in Alberta:

In Alberta, two research studies focusing on waterpipe use are currently underway. When completed, the findings from the research studies will be used to develop a waterpipe awareness campaign for Alberta. The awareness campaign will likely occur later in the 2012/2013 fiscal year in partnership between Alberta Health and Wellness and Alberta Health Services.

Moving forward:

Intervention will likely become more difficult as more establishments adopt waterpipe use. Early intervention will help to achieve desired outcomes. It is therefore proposed that Alberta Health and Wellness begin work on amending the Tobacco Reduction Act to prohibit the use of waterpipe smoking in public places, workplaces and within 5 meters from the doorway, window or air intake to a public place or workplace.

Having more restrictive legislation on waterpipes would reduce the amount of second-hand smoke that patrons and employees are exposed to; reduce the uncertainty and costs associated with determining if the product being smoked in a waterpipe actually contains tobacco or not; and create awareness regarding the harmful effects of waterpipes, making it less appealing to youth and young adults.

Although there may be concerns raised related to the cultural and religious use of waterpipes, this recommendation is nonetheless aligned with the direction of the World Health Organization.

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